

Applicant : Huitao Luo
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Attorney's Docket No.: 200310865-1
Response dated May 12, 2008
Reply to Office action dated Feb. 26, 2008

Remarks

I. Status of claims

Claims 1-68 are pending.

Claims 9-10, 18-22, 30-33, 37-45, 49-57, 61-63, and 68 have been allowed.

Claims 43 and 44 depend from allowed independent claim 37 and therefore are in condition for allowance for at least the same reasons as claim 37.

The Examiner also has indicated that claims 2-17, 23-29, 34-36, 46-48, 59, 60, and 64-67 would be allowable if rewritten in independent form.

II. Claim rejections

The Examiner has rejected claims 1 and 58 under 35 U.S.C. § 102(e) over Meckes (U.S. 2003/0044063).

A. Applicable standards for sustaining a rejection under 35 U.S.C. § 102(e)

The relevant part of 35 U.S.C. § 102(e) states that a person shall be entitled to an invention, unless - “the invention was described in -- (1) an application for patent published under section 122(b), by another filed in the United States before the invention by the applicant for patent...” Anticipation under 35 U.S.C. § 102(e) requires that each and every element of the claimed invention be present, either expressly or inherently, in a single prior art reference. EMI Group N. Am., Inc., v. Cypress Semiconductor Corp., 268 F.3d 1342, 1350 (Fed. Cir. 2001). Anticipation must be proved by clear and convincing evidence. Electro Medical Systems, S.A. v. Cooper Life Sciences, Inc., 34 F3d 1048, 1052 (Fed. Cir. 1994).

B. Independent claim 1

Independent claim 1 recites:

1. A method of processing an input image, comprising:

sub-sampling the input image to generate a thumbnail image comprising a reduced-size version of the input image in its entirety; and
detecting redeye pixel areas in the thumbnail image.

In support of the rejection of claim 1, the Examiner has taken the position that:

- Meckes discloses the sub-sampling element of claim 1 in ¶¶ 9 and 14-16; and
- Meckes discloses the detecting element of claim 1 in ¶¶ 9, 24, 25, 27, 35, 38, 40, 42, 44, and 58.

Meckes discloses that images are screened using certain exclusion criteria before redeyes are detected in the images and that a subsequent red-eye defect detection process is performed only those images that do not satisfy the exclusion criteria (see Abstract and ¶ 9). In accordance with Meckes disclosure, reduced resolution versions of original high-resolution images may be analyzed for the following exclusion criteria: no flash (see ¶¶ 15 and 20), no hard shadows (see ¶ 21), poor contrasts (see ¶ 22), no adjacent skin tones (see ¶ 24), no skin tones (see ¶ 25), adjacent skin tones without facial characteristics (see ¶ 27), and significant fall-off of the Fourier transformed signal of the image data (see ¶ 28). None of these exclusion criteria analyses, however, involves detecting redeye pixel areas in the reduced resolution images. Thus, the process of analyzing exclusion criteria in reduced-resolution versions of the images does not involve detecting redeye pixel areas in the reduced resolution images. Instead, the detection of redeye pixel areas is performed on the original high-resolution images (see, e.g., ¶ 37: “if in step 13 it is determined that red-eye defects cannot be excluded from the outset, the high-resolution image data will be analyzed to determine, whether certain prerequisites or indications for the presence of red-eye defects are at hand and the actual defect detection process will start”).

As explained above, the Examiner has taken the position that Meckes discloses the detecting element of claim 1 in ¶¶ 9, 24, 25, 27, 35, 38, 40, 42, and 44. Contrary to the Examiner’s position, however, the cited paragraphs do not support the Examiner’s position that Meckes discloses “detecting redeye pixel areas in the thumbnail image.”

In ¶ 9, Meckes discloses that at least one exclusion criterion is analyzed “prior to the application of the method for the detection of red-eye defects” and that the method for the

detection of redeye defects is terminated if the occurrence of redeye defects is definitely ruled out. Paragraph 9 does not disclose “detecting redeye pixel areas in the thumbnail image.”

In ¶ 24, Meckes discloses that adjacent skin tones is a significant exclusion criterion to be checked. Paragraph 9 does not disclose “detecting redeye pixel areas in the thumbnail image.”

In ¶ 25, Meckes discloses that the analysis of skin tones in low resolution image data may be used as an exclusion criterion. Paragraph 25 does not disclose “detecting redeye pixel areas in the thumbnail image.”

In ¶ 27, Meckes discloses that if skin tones are present adjacent skin tones may be analyzed to see if they meet characteristics of a face and the result of this analysis may be used as a more meaningful exclusion criterion. Paragraph 27 does not disclose “detecting redeye pixel areas in the thumbnail image.”

In ¶ 35, Meckes discloses that exclusion criteria analysis may be performed on low resolution versions of images and thereby save computing time as compared to performing the exclusion criteria analysis on the original high-resolution images in which case the savings in computing time would not justify performing the exclusion criterion analysis. Paragraph 35 does not disclose “detecting redeye pixel areas in the thumbnail image.”

In ¶ 38, Meckes discloses that after the exclusion analyses have been performed, various prerequisites or indications for the presence of red-eye defects are performed on the original high-resolution image data (see ¶ 37). These prerequisites or indications should be checked independently of each other and preferably in parallel. Paragraph 38 does not disclose “detecting redeye pixel areas in the thumbnail image.”

In ¶ 40, Meckes discloses that the original high-resolution image data are analyzed for the occurrence of skin areas. Paragraph 40 does not disclose “detecting redeye pixel areas in the thumbnail image.”

In ¶ 42, Meckes discloses that the redeye candidate value is compared to a threshold to determine whether or not redeye candidates are present in the original high-resolution image (also see ¶ 41). Paragraph 42 does not disclose “detecting redeye pixel areas in the thumbnail image.”

In ¶ 44, Meckes discloses that if the degree of agreement of the candidates with eye criteria is relatively great, a face recognition process is applied to the original high-resolution

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image data (also see ¶ 43). Paragraph 44 does not disclose “detecting redeye pixel areas in the thumbnail image.”

With respect to ¶¶ 38, 40, 42, and 44, the Examiner appears to have misunderstood the contents of Meckes disclosure. In particular, these paragraphs describe processes that are performed on the original high-resolution image data after the exclusion criteria analyses have been performed. A correct understanding of Meckes disclosure reveals that Meckes neither expressly nor inherently describes “detecting redeye pixel areas in the thumbnail image,” as recited in claim 1.

For the reasons explained above, the rejection of claim 1 under 35 U.S.C. § 102(e) over Meckes should be withdrawn.

C. Independent claim 58

Independent claim 58 recites elements that essentially track the pertinent elements of independent claim 1 discussed above. Therefore, claim 58 is patentable over Meckes for at least the same reasons explained above.

III. Conclusion

For the reasons explained above, all of the pending claims are now in condition for allowance and should be allowed.

Charge any excess fees or apply any credits to Deposit Account No. 08-2025.

Respectfully submitted,



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